IN THE SPECIFICATION

Please amend the following paragraphs as follows:

[0018] Turning now to the drawing figures and with initial reference to FIG. 1, an exemplary diode laser 100 suitably includes an array 101 of laser diodes, a spatial light modulator 102, a beam splitter 104, a photodetector 106 and control electronics 108. Light produced by diode array [[102]] 101 is phase corrected by spatial light modulator 102 to produce a light beam 124 with improved phase symmetry phase coherence. The spatial light modulator is actively controlled by control electronics 108, which receives feedback signals 107 from photodetector 106 and provides control signals 110 to spatial light modulator 102 as appropriate. Light beam 124 may be directed to a laser gain medium 131 residing proximate to the light source 100 within a lasing cavity 133.

[0020] Each laser diode (e.g. diode 100A) in array [[102]] 101 is capable of producing a beamlet 120 of coherent light radiation. Laser diodes commonly used as pump sources in solid state lasers, for example, typically emit radiation from a surface that is on the order of about 1-2 μm high and about 100-200 μm wide. Such diode elements typically provide an optical output power on the order of about 0.5 to about ten watts, although diodes having any output power could be used in a wide array of alternate embodiments. Moreover, several types of diodes may be purchased in one-dimensional arrays of ten or more diodes (called "diode bars") that typically provide 10 to 100 watts or so of average power. Diode bars may be equipped with electrical terminals and may be mounted on heat exchangers, as appropriate. Moreover, as described above, multiple diode bars may be stacked or otherwise arranged to create two-dimensional arrays 101 that may provide a kilowatt or more of average output power while providing relatively convenient connections for coolant and electrical power. Laser diodes and diode bars are provided from multiple commercial vendors, including Coherent Inc. of Santa Clara, California, Industrial Microphotonics Company of St. Charles, Montana, Thompson-CSF of Orsay, France, and others.

[0026] Control electronics 108 are any digital and/or analog processing circuitry and associated software, firmware or the like used to control SLM 102 as appropriate. In an exemplary embodiment, control electronics 108 is implemented with a microprocessor or microcontroller-based computing system with associated input/output circuitry and digital memory for storing data and instructions executable by the processor/controller as appropriate. In operation, control electronics 108 suitably receive one or more feedback signals 107 from photodetector 106 and process the feedback data to create appropriate control instructions 110 for SLM 102. In a further embodiment, control electronics 108 also provide control instructions 112 to one or more diodes 102A within diode array [[102]] 101. Such controls may be useful in modulating or otherwise adjusting the amplitude or power on/off state of one or more diodes to create desired power levels in the laser beam produced by diode laser 100. Light source control instructions 112 are optional, however, and will not be found in all embodiments.

[0027] With reference now to FIG. 2, an alternate embodiment of a diode laser 200 showing additional detail suitably includes an array of laser diodes 201, a spatial light modulator 202, a beam splitter 204, and optional coupling optics 203 and 205 as appropriate. Diode laser 200 also includes any number of photodetectors 206 providing a multiplicity of feedback signals to control electronics 208, which in turn processes the feedback data to produce various control signals 210 to SLM 202, and optionally control signals 212 to diode array 201. As in the previous embodiment, diode array 201 may have any number (e.g. dozens, hundreds or even thousands) of laser diodes arranged in any fashion. The various beamlets produced by the various diodes collectively form laser beam 220, which is ultimately split into an output beam 224 and a sensing portion 222 by beam splitter 204. Output beam 224 may be directed, for example, to a laser gain medium 131 disposed within a lasing cavity 133.